

SUPPORT FOR THE AMENDMENT

Support for the amendments to Claims 1, 2 and 11 is found on page 15, lines 1-4 of the specification. Support for claim 12 is found on page 15, line 4 of the specification. No new matter would be added to this application by entry of this amendment.

Applicants have corrected the identifier of claim 1, to be one of the acceptable identifiers.

Upon entry of this amendment, Claims 1-12 will now be active in this application, with claims 1-5 and 9-12 being under active consideration.

REQUEST FOR RECONSIDERATION

The present invention is directed to a bulky sheet.

Applicants would like to thank Examiner Chevalier for the helpful and courteous discussion held with their U.S. representative on June 2, 2004. At that time, Applicants' U.S. representative argued that the cited reference failed to suggest a bulky sheet having an entanglement coefficient of 0.05 to 2 N• m/g. The following is intended to expand upon the discussion with the Examiner.

Disposable cleaning sheets based on entangled fibers have recently become popular for household cleaning. Dirt and debris may become entrapped within entangled fibers providing for the removal of dust, rather than simply being redistributed.

The desire to improve the feel and performance of such bulky sheets has resulted in the introduction of a patterned surface thereon. During such patterning, it is sometimes the case that the pattern is formed unevenly or a desired thickness is not obtained. Accordingly, improved bulky sheets are sought.

The present invention addresses the problem by providing for a bulky sheet comprised of an entangled fiber aggregate having projections and depressions, having an entanglement

coefficient of 0.05 to 2 N• m/g. Applicants have discovered that such a sheet feels soft and agreeable to the touch and is capable of picking up dirt and debris from uneven surfaces.

Such a bulky sheet is nowhere disclosed or suggested in the cited prior art of record.

The rejections of claims 1 and 11 under 35 U.S.C. § 103(a) over Cotton et al. (U.S. 5,223,319) in view of Horrocks and of claims 2, 4, 9 and 10 under 35 U.S.C. § 103(a) over Cotton et al. in view of Horrocks in further view of Shizuno et al. U.S. 5,525,397 are respectfully traversed.

None of the cited references suggests a bulky sheet comprised of an entangled fiber aggregate having projections and depressions, having an entanglement coefficient of 0.05 to 2 N• m/g.

Cotton et al fails to disclose or suggest a bulky sheet comprised of an entangled fiber aggregate having projections and depressions, having an entanglement coefficient of 0.05 to 2 N• m/g.

Cotton et al describes a nonwoven fiber wipe in which at least one surface is raised (column 1, lines 56-65). In order to form the raised surfaces, the material is fed through a nip defined by rollers, pins pushing the fibers up into the corresponding orifices, leaving a plurality of raised surface areas and an aperture resulting from penetration of the pin through each of the raised surface areas 3, i.e. the pins 7 pass completely through the web 2 (column 5, lines 37-40) The fibers are not thermally set by the pins so that the fibers generally adjacent to the aperture remain substantially unconsolidated and some fibers **may** remain which might extend across and partially obstruct the apertures (column 5, lines 41-45). In doing so, the sheet, as a result of creation of raised surfaces has holes therein, the fibers of which are subject to a significant redistribution. Therefore there is clearly a lowering of the degree of entanglement at the aperture, the degree of entanglement at the aperture being nearly zero.

In contrast, the present invention is directed to a bulky sheet comprised of an entangled fiber aggregate having projections and depressions, having an entanglement coefficient of 0.05 to 2 N• m/g. Applicants note that the claims have been amended to recite an entanglement coefficient of 0.05 to 2 N• m/g. As the cited reference fails to disclose or suggest an entanglement coefficient of 0.05 to 2 N• m/g the claimed invention is clearly not made obvious from this reference.

The remaining references of Horrocks and Shizuno et al. U.S. 5,525,397 do not cure the basic deficiencies of the primary reference.

The Horrocks does not disclose or suggest an entanglement coefficient of 0.05 to 2 N• m/g.

As discussed above, Cotton et al. describes a method in which surfaces are provided with an aperture therein, a condition which does not suggest an entanglement coefficient of 0.05 to 2 N• m/g. Therefore, independent of the general teaching of Horrocks as to the use of water needling for the entanglement of fibers, there is no suggestion of a cleaning sheet having an entanglement coefficient of 0.05 to 2 N• m/g as Cotton describes a treatment process which introduces apertures into the sheet, a condition where the local degree of entanglement is nearly zero.

Shizuno merely is cited for a description of specific physical properties of a dust cleaning sheet, however, fails to suggest a cleaning sheet having projections and depressions as claimed. Moreover, the teachings of this reference can not overcome the teachings of the primary reference of Cotton in which an aperture is introduced, creating an area in which the degree of entanglement is nearly zero.

As such the references do not cure the basic deficiencies of the primary reference and accordingly, any rejections under 35 U.S.C. 103(a) should be withdrawn.

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Reply to Communication of September 2, 2004

Applicants submit this application is now in condition for allowance, and early notification of such action is earnestly solicited.

Respectfully submitted,

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